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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/920,508 | 08/01/2001 | James M. Carney | P6153 | 6336 |

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EXAMINER

NGUYEN, PHUONGCHI T

ART UNIT PAPER NUMBER

2833

DATE MAILED: 05/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/920,508

Applicant(s)

CARNEY ET AL.

Examiner

Phuongchi T Nguyen

Art Unit

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-17, 22 and 23 is/are allowed.
- 6) ☒ Claim(s) 2, 9, 10, 12, 18 and 21 is/are rejected.
- 7) ☒ Claim(s) 3-8, 11, 13 and 19-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's amendment of November 20, 2002 is acknowledged. It is noted that claim 1 is canceled. Claims 2-4, 6, 9, 12, 14, 18 and 21-22 are amended.

Claim Objections

2. Claims 6, 14 and 23 are objected to because of the following informalities:

Claim 6, line 2, "a mechanism" should change to – a second mechanism --.

Claim 14, line 7, "a mechanism" should change to – a second mechanism or a third mechanism--.

Claim 23, line 7, "a plurality" should change to – the plurality --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3, line 1, it is unclear where is "the plurality of the cavities", since claim 12 has only one interior cavity. Claim 3 cannot be examined on the merit.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 4-6, 9-10, 12, 14-17 and 21-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Seminara et al (US6050839).

In regard to claim 12, Seminara discloses an apparatus (Attachment 1 of figure 2) comprising a housing (A) defining an interior cavity (B) sized to surround at least one pin connector (54); and a mechanism (C) for removably securing the housing (A) over the pin connector (54) and an aperture (where 34 located) defined by a housing wall (A) and extending through the interior cavity (B) but isolated from the interior cavity (B) by the housing wall (of A).

In regard to claim 4, Seminara discloses the apparatus (Attachment 1 of figure 2) comprising the electrical connector wherein the mechanism (C) for removably securing the housing (A) over the pin connector (54) comprises an aperture (D) for engaging a structure (of 24) on the circuit board (10).

In regard to claim 5, Seminara discloses the apparatus (Attachment 1 of figure 2) wherein the aperture (D) has an irregular shape to create an interfering fit with the structure (of 24) on the circuit board (10).

In regard to claim 6, Seminara discloses the apparatus (Attachment 1 of figure 2) comprising a second mechanism (screw 34) to enable removal of the housing (A) from around the pin connector (54).

In regard to claims 9 and 10, Seminara discloses the apparatus (figure 2) wherein the housing (24) is made of a semi-rigid material or resin.

In regard to claim 14, in addition to claim 1, Seminara discloses the apparatus (figure 2) comprising a second mechanism (screw 34) for aligning the interior cavity (B) of the housing (A) with the pin connector (54) (see attachment 1 of figure 2).

In regard to claim 15, Seminara discloses the apparatus (Attachment 1 of figure 2) wherein the second mechanism (screw 34) for aligning comprises at least one wall of the housing (A) shaped to mimic a feature of the pin connector (54).

In regards to claim 16, Seminara discloses the apparatus (Attachment 1 of figure 2) wherein the second mechanism (screw 34) for aligning comprises at least one fin (50) projecting from a surface (78) of the housing (A) to facilitate handling thereof.

In regard to claim 17, Seminara discloses the apparatus (Attachment 1 of figure 2) wherein the second mechanism (screw 34) for aligning comprises an aperture (where 34 located and aperture inside 52) accommodating a feature of the pin connector (54) and circuit board (10).

In regard to claims 21 and 22, Seminara discloses the apparatus (Attachment 1 of figure 2) wherein a pin connector (54) is disposed within the interior cavity (B, through hole 56) of the housing/housing means (A).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, 7-8, 11, 13, 18-20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seminara et al (US6050839).

In regards to claim 2, Seminara discloses the apparatus (Attachment 1 of figure 2) comprising the interior cavity (B). Seminara discloses the invention, but lacks a plurality of cavities. It would have been obvious to one having ordinary skill in the art at the time the invention was made to partitioned the housing of Seminara into a plurality of cavities for expanding the length of the housing to protect more a plurality of the pin connectors in the housing; since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

In regard to claims 7 and 8, Seminara discloses the apparatus (Attachment 1 of figure 2) wherein the mechanism (screw 34) to enable removal comprises a projections (thread end) extending from a surface (forming by 58) of the housing (A). Seminara discloses the invention, but lacks a second projection. It would have been obvious to one having ordinary skill in the art at the time the invention was made to duplicate the projection of Seminara for removing or secure the housing over the pin connector; since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

In regard to claim 11, Seminara discloses the invention, but lacks an injection molding process housing. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an injection molding process on the housing of Seminara for ease assembly the housing over the pin connector.

In regard to claim 13, further limit from the second mechanism of claim 7, it would have been obvious to one having ordinary skill at the time the invention was made to provide a projection of Seminara on the housing by adding a plurality of projections such as a thread ends

of screw 34 onto the housing A with a plurality of cavities and a plurality of apertures such as the cavity B and the aperture D for expanding the connector housing.

In regard to claim 18, Seminara et al discloses a method (see Attachment 1 of figure 2) for preventing damage or contamination of the pin connector comprising providing a protective cover (22) having an interior cavity (B) defined therein, an aperture (where 34 located) defined by a wall of the housing (A) and extending through the interior cavity (B) and isolated from the interior cavity (B) by the housing wall, and mechanisms (screw 34) for aligning the protective cover (22) with features of the circuit board (10) and pin connector (54), and removably securing the protective cover (22) adjacent the circuit board (10) so that the pin connector (54) is disposed within the interior cavity (B) of the protective cover (22). The method taught by Seminara et al is not specifically for a computer system. However, since circuit boards such as that of Seminara et al are often in computer systems and frequently need protection, it would have been obvious to one having ordinary skill at the invention was made to use the method of Seminara et al to protect the pin connector for a computer system.

In regard to claim 19, Seminara discloses the apparatus (attachment 1 of figure 2) wherein the features comprise a cylindrical shape projection (thread end 34) and wherein the mechanism (screw 34) for aligning comprises an accurate surface (forming by 58) on the protective cover (A), and wherein aligning the protective cover (forming by 58) with the features so that the cylindrical shape projection (thread end 34) is disposed along the accurate surface (forming by 58) of the protective cover (A).

Claim 20 is rejected for the same reason of claim 7.

Claim 23 is rejected for the same reason of claim 14; the aperture of claim 14 is deemed equivalent to a second cavity of claim 23.

Response to Arguments

9. Applicant's arguments with respect to claims 2-17 have been considered but are moot in view of the new ground of rejection.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Miyajima et al (US6231369B1) is cited to show in the an apparatus for protecting one or more pin connectors on a circuit board comprising the interior cavity sized to surround at least one pin connector.

Response to Arguments

11. Applicant's arguments with respect to claims 2-17 have been considered but are moot in view of the new ground of rejection.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchi T Nguyen whose telephone number is (703) 305-0729. The examiner can normally be reached on Monday through Thursday from 8:00AM to 4:30PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (703) 308-2319. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7723 for regular communications and (703) 305-7723 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.

April 9, 2003

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